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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/686,396	10/14/2003	Keiichiro Ishihara	1232-5177	6840
27123	7590	12/29/2008		
MORGAN & FINNEGAN, L.L.P. 3 WORLD FINANCIAL CENTER NEW YORK, NY 10281-2101			EXAMINER BECKLEY, JONATHAN R	
			ART UNIT 2625	PAPER NUMBER
			NOTIFICATION DATE 12/29/2008	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PTOPatentCommunications@Morganfinnegan.com  
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<b>Office Action Summary</b>	<b>Application No.</b> 10/686,396	<b>Applicant(s)</b> ISHIHARA, KEIICHIRO	
	<b>Examiner</b> JONATHAN R. BECKLEY	<b>Art Unit</b> 2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 September 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,9,10 and 68-82 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,9 and 10 is/are rejected.
- 7) ☒ Claim(s) 68-82 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>02/19/2008</u>  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. **Claims 1, 9 and 10 are rejected under 35 U.S.C. 102(b)** as being anticipated by **Minoura et al. (US Patent 4,318,582)**.

Regarding **Claim 1, Minoura** teaches a two-dimensional scanning apparatus scanning an image spot on a surface to be scanned (**Column 1, lines 6-13, and lines 45-56**) comprising:

a deflector (**first deflecting device**) for two-dimensionally deflecting a light beam from a light source (**laser oscillator**) into a horizontal direction and a vertical direction (**Column 2, lines 49-61**), the light beam deflected from said deflector defines a maximum view angle (**X-X'**) having a central axis of a two-dimensional deflection range of the light beam as a deflection scanning axis (**Column 2, lines 15-20; Column 3, lines 29-44**); and

an optical system (**See Figure 1; optical system consists off all parts directing light after first deflector**) for directing the light beam deflected by said deflector onto the surface to be scanned (**Column 2, lines 42-48**),

wherein said optical system includes:

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an optical element a surface vertex **(second deflecting device)** of which is tilted and/or shifted **(rotated)** from the deflection scanning axis **(Column 2, lines 15-20; Column 3, lines 29-33; and Column 3, line 45 - Column 4, lines 30)**; and

no reflecting surface having optical power **(Column 2, lines 49-61;**

**Noted: the only optical power within the invention comes from the laser oscillator, light source).**

Regarding **Claim 9, Minoura** teaches a two-dimensional scanning apparatus scanning an image spot on a surface to be scanned **(Column 1, lines 6-13, and lines 45-56)** comprising:

a deflector **(first deflecting device)** for two-dimensionally deflecting a light beam from a light source **(laser oscillator)** into a horizontal direction and a vertical direction **(Column 2, lines 49-61)**, the light beam deflected from said deflector defines a maximum view angle **(X-X')** having a central axis of a two-dimensional deflection range of the light beam as a deflection scanning axis **(Column 2, lines 15-20; Column 3, lines 29-44)**; and

a scanning optical system **(See Figure 1; optical system consists off all parts directing light after first deflector)** for directing the light beam deflected by said deflector to the surface to be scanned **(Column 2, lines 42-48)**,

said scanning optical system including an optical element an optical surface **(second deflecting device)** of which is tilted **(rotated)** from the deflection scanning axis at an angle larger **(rotated angle w2)** than the maximum angle of view of the light

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beam deflected by said deflector (**Column 2, lines 15-20; Column 3, lines 29-33; and Column 3, line 45 - Column 4, lines 30; Noted: The maximum angle (X-X') is originally direct at a single angle, the rotation angle then rotates the beam at angle (Y-Y'))**).

Regarding **Claim 10, Minoura** teaches a two-dimensional scanning apparatus scanning an image spot on a surface to be scanned (**Column 1, lines 6-13, and lines 45-56**) comprising:

a deflector (**first deflecting device**) for two-dimensionally deflecting a light beam from a light source (**laser oscillator**) into a horizontal direction and a vertical direction (**Column 2, lines 49-61**), the light beam deflected from said deflector defines a maximum view angle (**X-X'**) having a central axis of a two-dimensional deflection range of the light beam as a deflection scanning axis (**Column 2, lines 15-20; Column 3, lines 29-44**); and

a scanning optical system (**See Figure 1; optical system consists off all parts directing light after first deflector**) for directing the light beam deflected by said deflector to the surface to be scanned (**Column 2, lines 42-48**),

wherein the surface to be scanned is tilted relative to the central axis of the two-dimensional deflection range of the light beam deflected by said deflector (**Column 4, lines 31-37**),

wherein said scanning optical system includes an optical element an optical surface (**second deflecting device**) of which is tilted (**rotated**) relative to the central

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axis of the two-dimensional deflection range of the light beam deflected by said deflector **(Column 2, lines 15-20; Column 3, lines 29-33; and Column 3, line 45 - Column 4, lines 30; Noted: The maximum angle (X-X') is originally direct at a single angle, the rotation angle then rotates the beam at angle (Y-Y'), and**

wherein a direction in which the surface to be scanned is tilted relative to the central axis and a direction in which the optical surface is tilted relative to the central axis are the same direction **(Column 4, lines 31-47).**

***Allowable Subject Matter***

3. Claims 68 – 82 contain allowable subject matter.
4. In view of applicant's failure to file a brief within the time prescribed by 37 CFR 41.37(a)(1), the appeal stands dismissed and the proceedings as to the rejected claims are considered terminated. See 37 CFR 1.197(b).

This application will be passed to issue on allowed claims 68-82 provided the following formal matters are corrected. Prosecution is otherwise closed.

Claims 1, 9, and 10 need to be amended to contain allowable subject matter to that of claims 6—82, and/or claims 1, 9, and 10 need to be cancelled.

Applicant is required to make the necessary corrections within a shortened statutory period set to expire ONE MONTH or THIRTY DAYS, whichever is longer, from the mailing date of this letter. Extensions of time may be granted under 37 CFR 1.136.

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5. The following is a statement of reasons for the indication of allowable subject matter:

**Independent Claim 68**, identifies the uniquely distinct features “wherein the optical scanning system includes: *a first meniscus lens having a negative optical power whose concave surface faces a side of the deflector; and a second meniscus lens having a positive optical power whose concave surface faces a side of the deflector and which is disposed in the surface-to-be-scanned side of the first meniscus lens, and wherein the second meniscus lens is tilted, about an axis perpendicular to a plane including the one-dimensional direction serving as a rotation axis, toward a side in which a light beam emitted from the light source is incident on the reflecting surface with respect to the first meniscus lens, and the second meniscus lens is shifted, in a plane including the one-dimensional direction, toward an incident side of the reflecting surface of the light beam emitted from the light source.*”

**Independent Claim 73**, identifies the uniquely distinct features “wherein a lens, or a lens of two lenses which is disposed closer to the surface to be scanned, in the optical scanning system *is tilted such that an angle between a normal at a surface vertex of an incident surface of the lens and a central axis of a two-dimensional deflecting range of the light beam soon after the light beam is reflected on the deflector is larger than a maximum field angle of the two-dimensional deflecting range and an angle between a normal at a surface vertex of an emergence surface and the central axis is larger than the angle between the normal of the incident*

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**surface and the central axis, wherein the surface vertex of the incident surface of the lens or the lens of two lenses which is disposed closer to the surface to be scanned is positioned shifted with respect to the central axis toward a side in which an extension of the normal at the surface vertex of the incident surface toward a light emergence direction extends, wherein the surface vertex of the emergence surface of the lens or the lens of two lenses which is disposed closer to the surface to be scanned is positioned shifted with respect to the central axis toward a side in which the normal at the surface vertex of the emergence surface extends, and wherein the surface to be scanned is tilted in the same direction in which the incident surface and the emergence surface are tilted.”**

### ***Response to Arguments***

6. Applicant's arguments, see Applicant Arguments/Remarks Made in an Amendment, filed 09/30/2008, with respect to the rejection(s) of claim(s) 1, 9 and 10 under 35 U.S.C. 102(b) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Minoura et al. (US Patent 4,318,582).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JONATHAN R. BECKLEY whose telephone number is



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(571)270-3432. The examiner can normally be reached on Mon-Fri: 7:30-5:00 EST  
(Alternate Friday).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, TWYLER L. HASKINS can be reached on (571)272-7406. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jonathan R Beckley/  
Examiner, Art Unit 2625  
12/20/2008

./Twyler L. Haskins/

Supervisory Patent Examiner, Art Unit 2625

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